

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4

ZHIDLEV, M.A.; KALASHNIKOV, A.G.; GRACHEV, A.P., red.; ZNAMENSKIY,
A.A., red.; SHAPOSHNIKOVA, A.A., red.

[Mechanical engineering in school] Mashinovedenie v shkole.
Moskva, Izd-vo APN, 1961. 187 p. (MIRA 17:4)

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CIA-RDP86-00513R002065320009-4

ZNAMENSKIY, A. A.

Seed Industry

Mechanization of work on testing plots. Sel. i sem., 19, No. 7, 1952.

Monthly List of Russian Accessions, Library of Congress
October 1952. UNCLASSIFIED.

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CIA-RDP86-00513R002065320009-4"

FRONIN, Mikhail Yemel'yanovich, doktor sel'khoz. nauk; MINEYEV,
Vasiliy Grigor'yevich, kand. sel'khoz. nauk; ZNAMENSKIY,
Aleksey Alekseyevich, dots.; GRIGOROVICH, A.T., red.;
BERNGARDT, N.Ye., tekhn. red.

[Fertilizers in crop rotations] Udobreniia v propashnykh sevo-
oborotakh. Voronezh, Voronizhskoe knizhnoe izd.-vo, 1962. 34 p.
(MIRA 15:6)

1. Voronezhskiy sel'skokhozyaystvennyy institut (for Znamenskiy).
(Fertilizers and manures) (Rotation of crops)

IRASINSKIY, Sergey Petrovich; USHAKOV, N.N., redaktor; ZNAKUSKIT, A.A.,
redaktor; EGGERT, A.P., tekhnicheskiy redaktor.

[Automation of industry] Avtomatisatsiya proizvodstva. Moscow,
Vses.uchebno-pedagog. izd-vo Trudreservizdat, 1956. 133 p.
(Automation)

(MIRA 9:5)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4

KUZNETSOV, Mikhail Ivanovich; STRAKHOV, S.V., doktor tekhn.nauk, red.;
ZNAMENSKIY, A.A., red.; TOKER, A.M., tekhn. red.

[Fundamentals of electrical engineering] Osnovy elektrotehniki.
8. izd., stereotipnoe. Pod red. S.V. Strakhova. Moskva, Prof-
tekhizdat, 1962. 559 p. (MIRA 16:2)
(Electric engineering)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

KUSHCHENKO, Vasiliy Semenovich; ZNAMENSKIY, A.B., nauchnyy red.;
KLIORINA, T.A., red.; ERASTOVA, N.V., tekhn.red.

[Collection of mathematical problems used in competitive
examinations and their solutions] Sbornik konkursnykh zadach
po matematike s resheniiami. Leningrad, Gos. nauchnoe izd-vo
sudostroit.promyshl., 1960. 371 p.
(Mathematics--Problems, exercises, etc.) (MIRA 13:10)

ZHAMENSKIY, A.B., kandidat tekhnicheskikh nauk.

Approximate investigation of the statical ship stability diagram.
Trudy VNITOSS 6 no.2:98-109 '55.
(MLRA 10:5)
(Stability of ships)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4

ZNAMENSKIY, A.Ye.

Pulse signal transmission channel with frequency limitation of
the lower level. Elektrosviaz' 19 no.6:70-71 Je '65.

(MIRA 18:6)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

SHIMANSKIY, Yu.A., akademik; PERSHIN, V.I., redaktor; SHAMANSKIY, A.P.,
kandidat tekhnicheskikh nauk; redaktor; PETERSON, H.M., tekhniches-
kiy redaktor

[Collection of articles on shipbuilding] Sbornik statei po sude-
stroeniiu. Pod obshchei red. V.I.Pershina. Leningrad, Gos. soiuznoe
izd-vo sudostroit. promyshlennosti, 1954. 395 p. [Microfilm]
(Shipbuilding) (MLRA 8:3)

BEZERUK, V.M.; MOTYLEV, Yu.L.; GROT, A.I.; ZNAMENSKIY, A.I.; IERUSALIMSKAYA,
M.F.; GERBURT-GAYBOVICH, A.V., redaktor; KOVAL'CHIKOV, N.F., tekhnicheskiy redaktor

[Building roads on saline soils and shifting sands] Stroitel'stvo
dorog na zasolennykh gruntakh i podvizhnykh pustkakh. Moskva,
Avtotransizdat, 1953. 202 p.
(MLRA 7:8)

1. Moscow. Dorozhnyy nauchno-issledovatel'skiy institut,
(Road construction)

ZNADENSKIY, A. I.

"In the Institute of Geology"
Izv. AN Turkmen SSR, 1953, No 5, 97

The author reports on the laboratories and field investigations of the Institute of Geology, Academy of Sciences of the Turkmenian SSR, in the field of aerodynamics of wind-sand current in order to solve the problem of fighting against drifting sands. (RZhGeol, No 3, 1954)

SO: W-31187, 8 Mar 55

ZHAMENSKIY, A.I.

I.A.Volkov's article "Character of wind flow on the lee-side of barkhans." Izv.Vses.geog.ob-va 89 no.3:259-261 My-Je '57.

(MIRA 10:11)
(Sand dunes) (Volkov, I.A.)

ZNAMENSKIY, A. I.

Cand. Geograph. Sci

Dissertation: "Wind Erosion and the Relief of Sand Deserts,"

15 April 49

Inst of Geography, Acad Sci USSR

SO Vecheryaya Moskva
Sum 71

PLUNGYAN, Tat'yana Markovna; ZNAMENSKIY, A.K., retsenzent; GABOVA,
D.M., red.

[Conveyorization of operations in knit goods manufacture]
Konveierizatsiya protsessov v trikotazhnom proizvodstve.
Moskva, Legkaia industriia, 1964. 140 p. (MIRA 17:9)

ZNAMENSKIY, A. V.

A. V. Znamenskiy, "Development of a System of Control Measures against Pests and Diseases of Grain Crops," Itogi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta Zashchity Rastenii za 1935 Goda, 1936, pp. 91-97. 432.92 L54I

SO: Sira Si 90-53, 15 Dec 1953

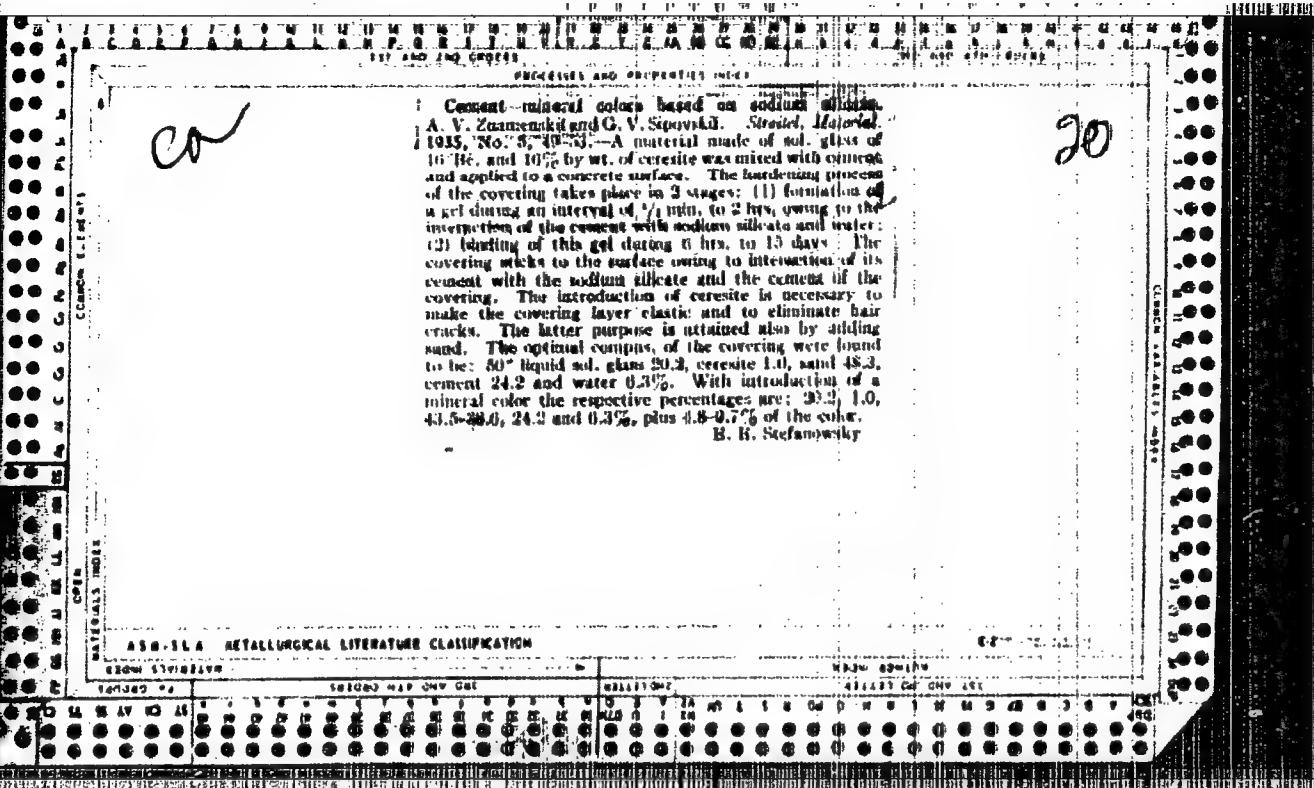
ZNAMENSKIY, A. V.

Znamenskiy, A. V., "Plan of Work of the All Union Institute of Plant Protection in 1933-1937," Sbornik Vsesoiuznogo Instituta Zashchity Rastenii, no. 2, 1932 pp. 6-11. 464.9 L542

SO: SIRA SI 90-53, 15 Dec. 1953

PROKOPOVICH, A.Ye.; ACHEMAN, N.S., professor doktor tekhnicheskikh nauk,
nauchnyy redaktor; ZHAMENSKIY, A.V., redaktor; KRYNOCHKINA, K.V.,
tekhnicheskiy redaktor.

[Modernization of milling machines] Modernizatsiya frezernykh
stankov. Moscow, Vsesoiuznoe uchebno-pedagog. izd-vo Trud-
rezervizdat, 1954. 44 p.
(Milling machines)



M

Determination of average specific surface of soil aggregate by the method of adsorption. A. V. Zinovich. *J. Applied Chem. (U. S. S. R.)* 1959, 32(10), p. 2301 (in French).—Place 1-g. samples of clay soil (I) and 3-6 g. samples of sandy soil (II), depending on size, in 100-ml. Erlenmeyer flasks and add methylene blue soln. of 2-4 concns. (1.0-0.5-0.25-0.125 g./l.). Stopper the flasks and shake well for 3-4 hrs. Leave I for 2 days and II for one day. Pipet out 1-6 ml. and compare with colorimetric solns. Adsorption follows the Freundlich equation. B. Z. Kuznetch.

AIR-SEA METALLURGICAL LITERATURE CLASSIFICATION

AN

Determination of average specific surface of small aggregates by the method of adsorption. A. V. Thompson and J. Applied Chem. (U. S. S. R.) 9, 204 (1959) French 2104(1959).—Place 1-g. samples of clay soil (I) and 3-6 g. samples of sandy soil (II), depending on size, in 100-ml. Kelenhegyes flasks and add methylene blue solns. of 2-6 concns. (1.0-0.5-0.25-0.125 g./l.). Stopper the flasks and shake well for 3-4 hrs. Leave I for 3 days and II for one day. Pipet out 1-6 ml. and compare with colorimetric solns. Adsorption follows the Freundlich equation $\text{q} = \text{K} \cdot \text{x}^{1/n}$.
B. Z. Kamal

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

✓Correlation of adsorption and chemical processes.

A. V. Zatsepinoff. *Colloid J. (U. S. S. R.)* 4, 631-9
(1938). Attempts were made to discover the mechanism
of interaction between cellulose and NaOH and between
Fe(OH)₃ and citric acid by reexan. of the expts. by
Klyachko (*C. A.* 30, 8008^a) and Blakhey (*C. A.* 30,
70001).

J. J. Silverman

ABE-164 METALLURGICAL LITERATURE CLASSIFICATION

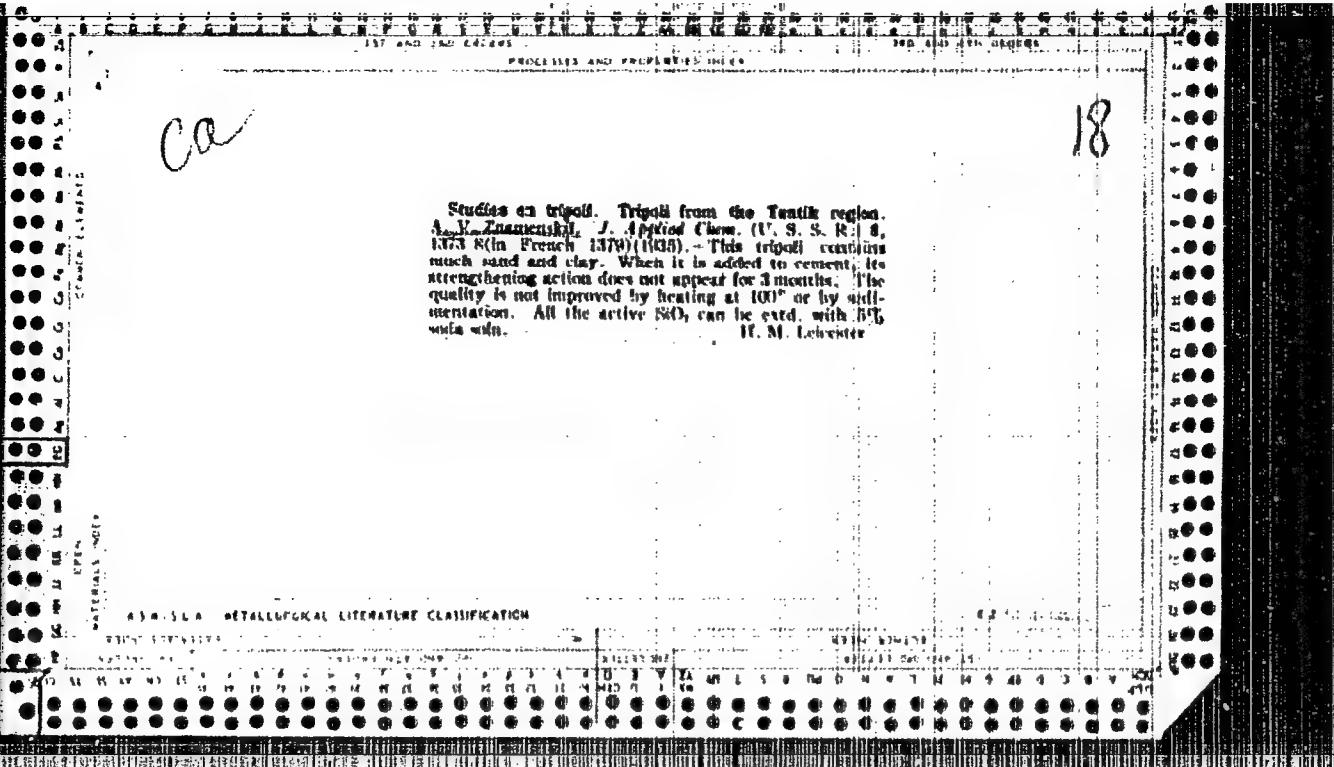
SECOND EDITION

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CIA-RDP86-00513R002065320009-4

The determination of liquid and solid hydrocarbons
in the oil. A. A. Polyanyi, Applied Chem.
(U. S. S. R.) 11, 674-80 (1938). French 641 (1939).—The
equation for the adsorption exchange given by Capon
(U. S. A., 19, 1074) is revised.
A. A. Polyanyi

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

The determination of benzoids and acidoids in asphaltoids of the soil. A. V. Zhuravskii. J. Applied Chem. U. S. S. R. 11, 773-781 (1938) [Bull. 641] (1938).—The equation for the absorption exchange given by Gapon (A. 29, 1918) is revised. A. A. Dubrovina.

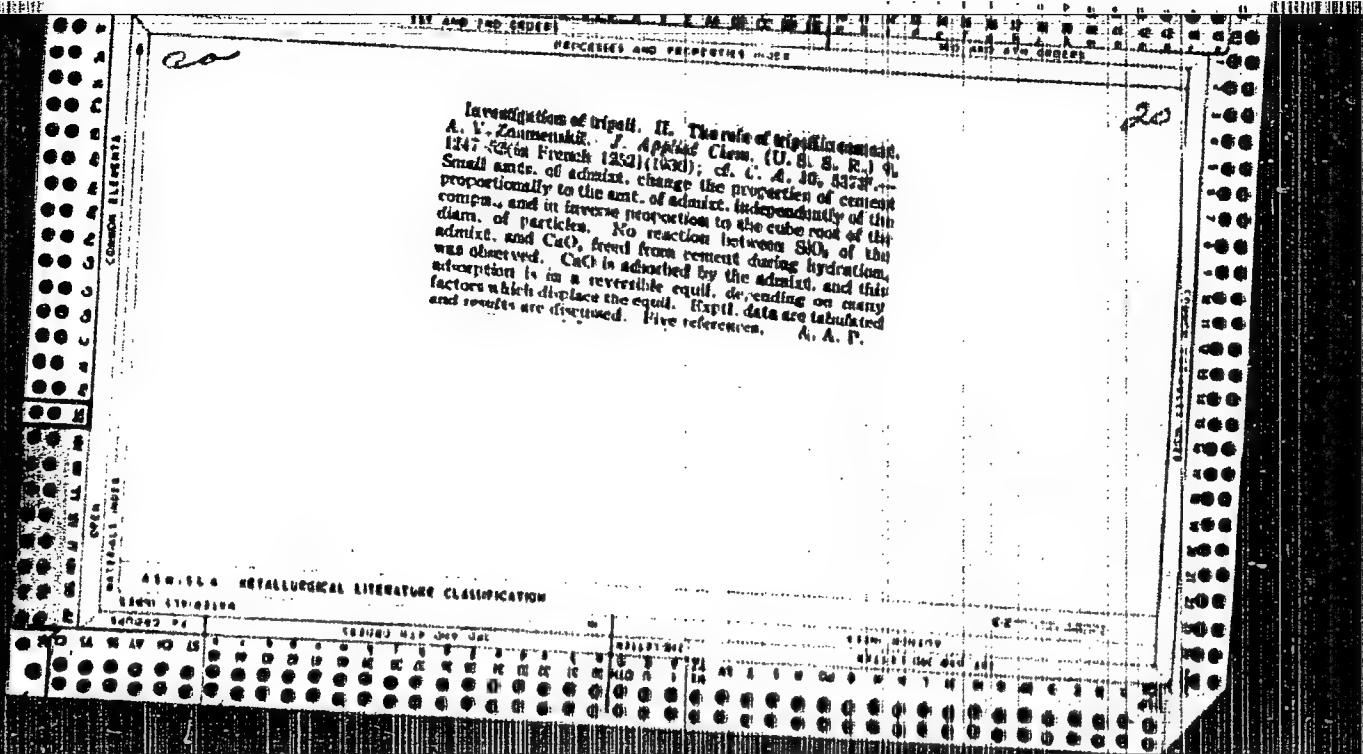
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494.314 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"



Investigation of triethyl. III. The rate of triethyl in cement mortar. A. V. Znamenskii. J. Applied Chem. (U. S. S. R.) 10, 24 (in German 60) (1937); cf. C. A. 31, 2263. The elec. cond. of cement mortar varies periodically with the content of water. Introduction of inert admixts. lowers the elec. cond. independently of the nature of the admixt., as a result of dehydration of the cement; in the amt. detd. by the formula: $\eta = a\sqrt{t}$, where η is the const. of adsorption of water, amounting for triethyl to 3.60, and t is the amt. of triethyl added.

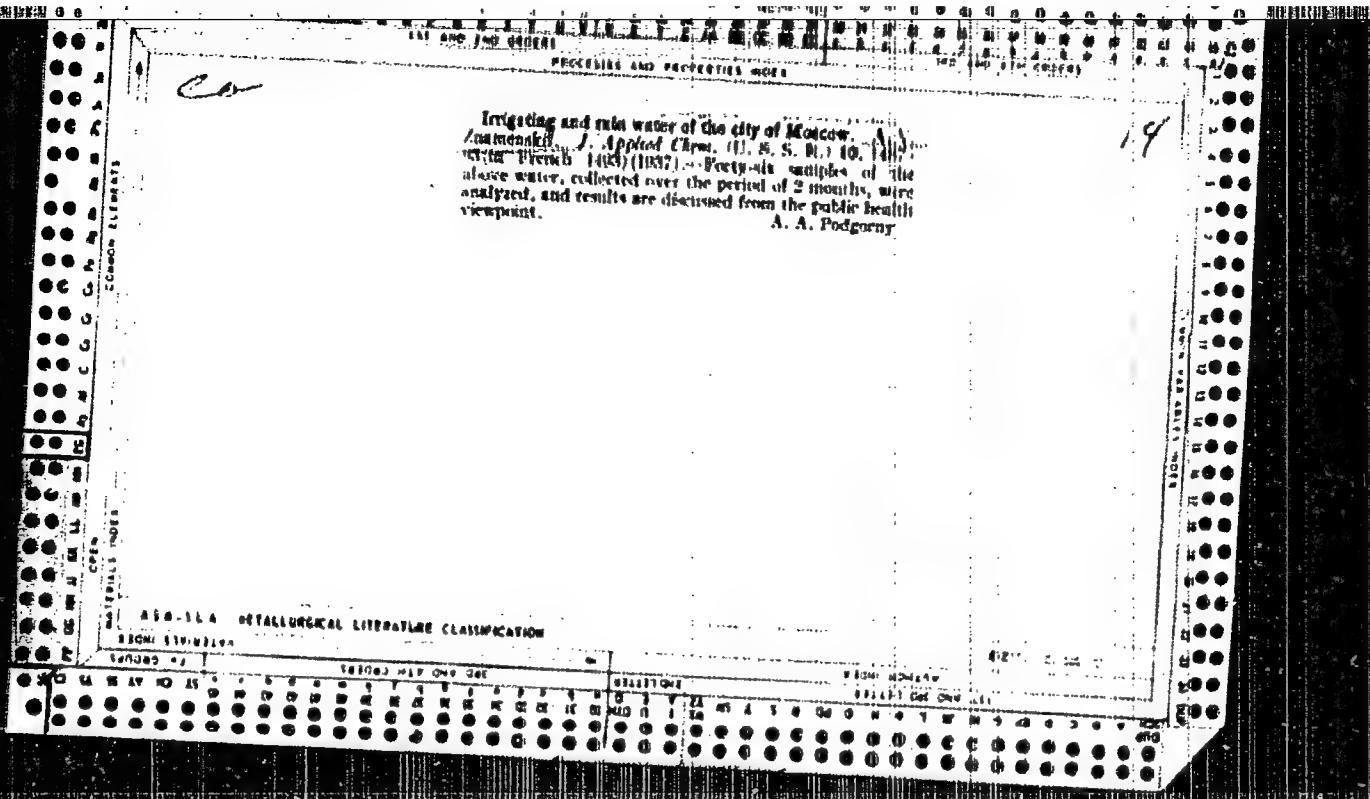
Inert admixt. does not react (chemically) with $\text{Ca}(\text{OH})_2$, illustrated by the hydration, but the admixt. affects the same physicochemically. This physicochem. action of the admixt. obeys the general law of equal distribution of energy in the system and the law given by the above formula. The amt. of inert admixt., which may be added to a cement mortar, the compn. of which corresponds to the elec. cond. at the upper portion of the parallelogram, is detd. by: $I(b) = PC/(W - a\sqrt{t})$, where P

is the activity of cement, C is the amt. of cement, W is that of water, a the const. of proportionality, detd. by (a) treatment of the hardened. Right references IV. The "activity" of triethyl. (Iid. 01-71) (German 67 H).

Removal of $\text{Ca}(\text{OH})_2$ from aq. solns. by means of triethyl, dry and sand proceeds only by absorption; the const. of adsorption by these admixts. (in liter and the const. of adsorption for methylene blue are related to each other as the sq. roots of the mols. wts. of triethyl and methyl blue). The activity of the admixt. is measured by its adsorptive power, which can be detd. by the Kell. or later method from MgCl_2 soln. by I(d) of admixt. or by the Leopold method. Since the solution of NaCl in the treatment with sand is a purely phys. process, the activity of the admixt. in this method has no relation to that of the Kell. method, but, because the neutralization velocity increases with increase of degree of dispersion and since the adsorptive power is a function of the sp. surface, there is an approx. const. relation between these two indices for similar admixts. Two references.

A. A. Podgorny

ASA 314 METALLURGICAL LITERATURE CLASSIFICATION



C.C.
A. V. ZNAMENSKIY

Received at the A. V. Znamenskiy and M. V. Philippov Pedology (U. S. S. R.) 1960, No. 2, 43-51 (in English, 51).—The oxidation processes in the soil depend on chem. compn., the mechanical structure and the bacterial flora of the soil. In order to study one factor at a time, a relatively simple reaction, corrosion of iron, was studied quantitatively in water and in soil. The aeration coeff. of soil is about the same as for relatively pure water: 3-7 g. per sq. m. per day, and is expressed for water and iron as $\alpha = K \cdot A_s / D_{soil}$, where A_s is the surface area and K is the diffusion factor. This formula is entirely applicable to soil. It demonstrates clearly the validity of the now abandoned diffusion theory of adsorption. Oxygen has to diffuse through the film of oxide to the metal surface and, in soil, it has to penetrate through the layer of soil particles to reach the iron. A sand layer 11 cm. thick covered with water 1 cm. deep produced corrosion in 10 days, with av. aeration coeffs. of 0.733 and 0.6648, respectively, when the diams. of the particles were 1 mm. and 1-0.3 mm. The screening effect is inversely proportional to the cube root of diams. Accordingly, the diffusion factor $K = 1.33\% / D$, where D is wt. per unit vol., and d is the av. diam. of soil particles. The aeration coeff. both in water and soil is a function of the intensity of the oxidation process; it rises with temp., though not as much as other chemical reactions. It increases with the quantity of oxidizable substances in the soil. Thus when a soil ext. is substituted for water, the α value decreases, because the O₂ is being absorbed and utilized by the org. matter.

C. S. Shapiro

450-514 METALLURGICAL LITERATURE

Classification Elements

Confidential Index

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CIA-RDP86-00513R002065320009-4

ZNAFENSKIY, A. G., KALININ, Fm; ROSENBERG, Fm; LEBEDEV, Pm

**Georgy Dmitriyevich Znafenskiy, (Microbiologist, 1875-1950, Obituary), "Zhur Mikrobiol, Epidemiol i Immunobiol, 1950, No. 10.*

Mikrobiologiya, Vol XX, No. 5, 1951. 4-24635

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CIA-RDP86-00513R002065320009-4"

ZHAMENSKIY, A.I.

Protecting the Zakhmetskiy section of the Kara-Kum Canal against
sand drifts. Izv.AN Turk.SSR no.2:25-32 '56. (MLRA 9:8)

1. Institut geologii AN Turkmeneskoy SSR.
(Kara-Kum Canal--Sand dunes)

ZHABROVA, Z.V., inzh.; ZNAMENSKIY, A.K.; DERZHAVINA, M.F., inzh.

Use of elastic yarn in the hosiery industry. Tekst.prom. 19 no.4:
44-50 Ap '59. (MIRA 12:6)

1. Zamestitel' glavnogo inzhenera fabriki "Krasnoye ramya" (for
Znamenskiy).
(Hosiery industry) (Elastic fabrics)

ZNAMENSKIY, A.M.

Tripoli of Moscow Province. Uch. zap. MOPI 124:169-192. 193.

The most efficient way of using the Moscow basin low-grade
high-ash content brown coals. Ibid.:193-204.

(MIRA 18:6)

ZNAMENSKIY, A.M.

Use of waste dumps in the quarries of Moscow Province. Uch.zap.
MOPI 97:41-46 '61. (MIRA 15:3)
(Moscow Province--Quarries and quarrying)
(Waste products)

ZNAMENSKIY, A.M.

Conditions governing the coal accumulation in the Lower Carboniferous in the southwestern wing of the Moscow Basin. Uch.zap.
MOPI 97:3-21 '61.

(Moscow Basin--Coal geology) (MIRA 1513)

ZNAMENSKIY, A.M.

Limestones, dolomites, and marls of Moscow Province. Uch.zap.
MOPI 97:23-39 '61. (MIRA 15:3)
(Moscow Province---Rocks, Sedimentary)

ZNAMENSKIY, A.P.; GORBUNOV, B.I.

Capron-and-graphite bushings for the pressure rolls of spinning
machines. Tekst. prom. 24 no.10:44 O '64. (MIRA 17:12)

1. Nachal'nik tsekh Shuysko-Tezenskoy fabriki (for Znamenskiy).
2. Nachal'nik remontno-montazhnogo otdela shuysko-tezenskoy
fabriki (for Gorbunov).

*BC**B-3-1*

Reactions of oil. A. V. Kamenish and M. V. Timofeev (Pisatery, 1960) found that oxidation of oil occurs at approx. the same rate as oxygenation of a moderately polluted H_2O and, as in H_2O , the reactivity is a function of the amount of oxidized surface. The capacity of oil oxidation with the O_2 loss of the equivalent of fine particles, call directly on the degree of dispersion. Small particles increase the proportion of O_2 proportionally to the case tested their diameter.

A10-11A METALLURGICAL LITERATURE CLASSIFICATION

44-7101-4429

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Tentile country, 4, V. T. AMMEND, J. Appl. Chem., 1935, 8, 1072-1079.—Sillary from the Tentile deposits is contaminated with about 30% of sand or clay; the active SiO_2 content is given approx. by $A = \frac{a}{(A - B)}$, where a is the total SiO_2 and b the $\text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3$ content, or, more exactly, by $A = -\log \frac{a}{(A - B)}$, whence A is const. for a given sample, a is the ratio of extractions with eq. Na_2CO_3 and B the total amount of SiO_2 dissolved in a extraction. Administration of sillary to dental patients resulting in the beneficial effects become apparent after < 2 months, and may suspend or reduce of cures. $\text{Ca}(\text{OH})_2$, or on the structural effects. Handling reduces the active SiO_2 content of sillary except in presence of contaminants (sand). R. T.

BET - 10

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B-1-10

Cement-silicate esterite based on sodium silicate. A. V. Vaynshteyn and G. V. Slobodskoi. Mat. 1951, No. 6, (1)-32. A mixture of water-glass (4:1:3) and 16 wt.-% of carboxyl (I) was mixed with cement and applied to a concrete surface. This covering adheres to the surface. The (I) renders it elastic and eliminates hair cracks; it will also eliminate them. The optimum composition was: 50% liquid alk. glass 22-2, (I) 1-0, and 48-3, cement 24-2, H_2O 6-1%. 48-0-7% of a mineral colour may be added. Cr. Am. (4)

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

CONTINUATION

BC

B-1-0

Keretis. 11. Viscosity of emery in cementitious mixtures.
A. V. Zvezdin. Zh. Appl. Chem. Russ., 1956, 9, 1247
Diss.: Addition of equal wt. of emery to cements
affects the proportion of the products to an extent $\propto r^{-1}$,
where r is the median diam. of the particles of emery.
The Ca(OH)₂ liberated during the hydration process
does not combine chemically with the SO₄²⁻ contained
in the emery, but undergoes adsorption; the molar
adsorption coeff. for a sol. of Russian emery is 0.6.
N. T.

ASA-ELA METALLURGICAL LITERATURE CLASSIFICATION

SIGHT INDEXES
SIGHT INDEXES
SIGHT INDEXES

TECHNOLOGY

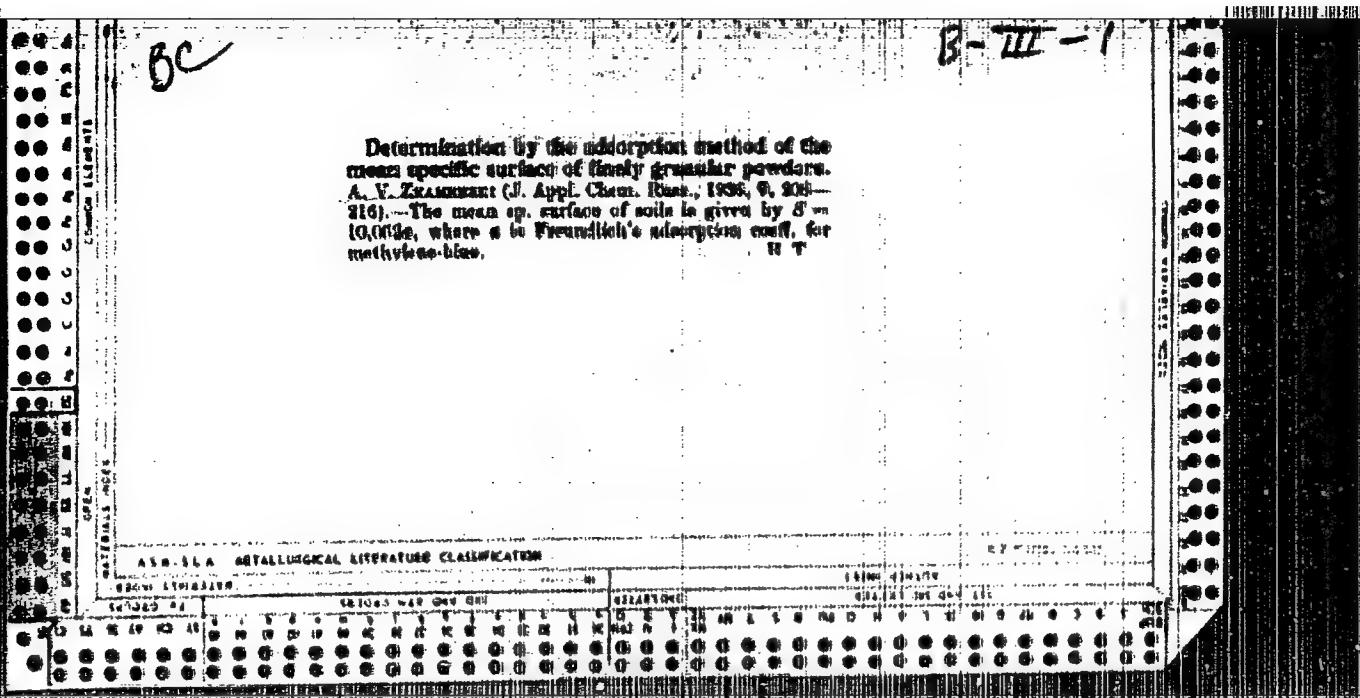
SIGHT INDEXES

BC

B-ET-1

Determination by the adsorption method of the mean specific surface of finely granular powders. A. V. ZILMANOV (J. Appl. Chem. USSR, 1935, 9, 203-216).—The mean sp. surface of soils is given by $S = 10.016a$, where a is Freundlich's adsorption const. for methylene-blue.

三-三二-1



BC

Determination of average equilibrium pressure in
gas-generating media, from the equilibrium of
distribution of water (A. V. Kurnosov, J. Appl.
Chem., Russ., 1957, 10, 1025-1030). The equilibrium
of H₂O in saturated solutions according to Le Chatelier's
law. The average equilibrium pressure is given by: $\log P_{av} = k \log P_0 + \log \frac{P_0}{P_1}$, where k is the distribution coeff., and P_0
and P_1 are the H₂O content at depths H and G cm,
respectively.

ASA-514 METALLURGICAL LITERATURE CLASSIFICATION

RECD 514 1960

180044 MAY 1960 GSC

REF ID: A2210

MAY 1960

GSC

ZHAMENSKIY, A.Ye.

Input and output reactance circuits of amplifiers with a finite
number of circuit elements. Elektrosviaz' 12 no.11:45-51
N '58. (MIRA 11:11)

(Amplifiers, Electron-tube)

ZNAMENSKIY, Aleksandr Yevgen'yevich; SIL'VINSKAYA, K.A., otr. red.;
PETROVA, V.Ye., red.; SLUTSKIN, A.A., tekhn. red.

[Controlled artificial lines] Reguliruemye iskusstvennye lini. Moskva, Gos. izd-vo lit-ry po voprosam sviati i radio, 1961. 51 p.

(MIRA 1512)

(Radio lines) (Delay lines)

SOV/106-58-11-6/12

AUTHOR: Znamenskiy, A. Ye.**TITLE:** Input and Output Reactive Networks of Amplifiers With a Finite Number of Circuit Elements. (Vvedeniye v yekolodnyye reaktivnyye tsepi usilitelye s konechnym chislom skhemnykh elementov.)**PERIODICAL:** Elektrosvyaz', 1958, Nr.11, pp.45-51 (USSR)**ABSTRACT:** These circuits are commonly used to couple from the characteristic resistance of a cable into the capacitance of the grid circuit of a valve or from an anode circuit into a cable. The relationship between resistance, capacitance and frequency is expressed by Bode's gain-area theorem (1)(Ref.1). In practice it is impossible without an infinite number of circuits to confine the total gain-area between definite limits. The expression for k (middle of p.46) measures the extent to which such an attempt is successful with a finite number of elements. The most generally encountered transfer function is that of (3). It will be assumed that the amplification is to be as constant as possible between the upper and lower

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Input and Output Reactive Networks of Amplifiers With a Finite
Number of Circuit Elements.

limits of frequency and outside this range is to fall off as rapidly as possible. It is well-known that such a response is guaranteed by the use of a Chebyshev polynomial (Ref.2). After allowing for any transformed reactances, the circuits considered are those in Fig.3 and the response to be aimed at is in Fig.4. Upon substitution of the expression for the Chebyshev polynomial, the transfer function becomes (4) which is valid for circuits with even numbers of elements. The corresponding expression for utilization coefficient, k , is (5). The denominator of the expression to be integrated in (5) is given trigonometrically in (6). By changing the variable as in (8) the integral is evaluated in (9). Fig.5 is the graph of the Chebyshev function plotted in terms of the substituted variable and it may be easily confirmed that the integral in the numerator of (8) can be approximately reckoned equal to the shaded area within the rectangle.

Even in the extreme case when the number of circuit elements

Card 2/4 is 2 the error due to this is only about 1% when the

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Input and Output Reactive Networks of Amplifiers With a Finite
Number of Circuit Elements.

permissible pass-band ripple is $\epsilon = 0.17$ and the frequency ratio $\gamma = 5$. Substituting the formal expression for the area of the rectangle we arrive at an approximation to k (10). The latter enables us to study the effect of k on pass-band distortion and the number of elements for any given ratio of upper to lower frequency (γ). Fig.6 is a typical family of curves for $\gamma = 5$. A simple "rectangular filter" interpretation of Bode's formula would give the circuit gain as (2). Allowing for the utilization factor, k , this becomes (11). For example, if the stray capacitance is 10 pF and the cable resistance is 135 ohms, and the pass-band 48 kc/s wide, then the maximum gain according to Bode is 4.2 nepers. With a Chebyshev response however having a distortion $\epsilon = 0.02$, and a frequency ratio $\gamma = 5$, the gain is 3.76 nepers when the number of circuit elements is $n=4$. Increasing n to 6 gives 3.95 nepers and for $n=10$ the gain is 4.1 nepers. Starting from the transfer function with Chebyshev polynomial (4) the actual design of the circuit proceeds

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Input and Output Reactive Networks of Amplifiers With a Finite
Number of Circuit Elements.

by decomposing this formula into factors (Ref.4) using (7). The result is (12). This leads to the input impedance (13). It is also possible to design for a more elaborate response by incorporating equalizing action as described in Ref.6. Instead of (4), (14) must then be used. In this latter case it may prove however more advantageous to use the expression due to A.F. Beletskiy (Ref.7). Prof. A.F. Beletskiy is thanked for posing the problem. There are 6 figures and 7 references, of which 6 are Soviet and 1 English.

SUBMITTED: February 3, 1958.

Card 4/4

TELOSHENKO, V.V.; MARTYNISHKIN, A.M.; TSUKANOV, V.P.; GANGO, Ya.V.;
SHIKOV, I.P.; NIKONOV, A.V.; POSTNIKOV, V.P.; KOROLEV, G.D.;
ARTAMONOV, A.M.; TEMNIKOV, S.N.; KABLUKOVSKIY, A.F.; MAKHOV, A.Kh.;
KOTIKOV, A.Kh.; ZNAMENSKIY, B.A.; ZUYEV, T.I.; POZDNYAKOV, A.P.;
BALASHOV, S.A.; YERMOKHIN, I.P.

New design of electrode holders for electric-arc smelting furnaces.
Prom. energ. 15 no.8:13-14 Ag '60. (MIRA 15:1)
(Electric furnaces)

ZNAMENSKIY, B.Y.; FAKIDOV, I.G.

Electric resistance and its changes in the magnetic field of a
polycrystalline alloy of Cu-22.8 at. % Mn. Fiz. met. i metalloved.
13 no.5:784-785 My '62. (MIRA 15:6)

1. Institut fiziki metallov AN SSSR i Sverdlovskiy gosudarstvennyy
pedagogicheskiy institut.
(Copper-manganese alloys—Electric properties)

ZNAMENSKIY, B.

Some difficulties encountered in introducing synthetic and
plastic products in ship repair. Mor. flot 25 no.2:37 F '65.
(MIRA 18:4)

1. Rukovoditel' gruppy novoy tekhniki Tuapsinskogo sudoremontnogo
zavoda imeni Dzerzhinskogo.

ZNAMENSKIY, B.V.; FAKIDOV, I.G.

Superparamagnetic properties of certain antiferromagnetic alloys
of the system Cu - Mn. Fiz. met. i metalloved. 14 no.3:391-
395 S '62. (MIRA 15:9)

1. Institut fiziki metallov AN SSSR i Sverdlovskiy gosudarstvennyy
pedagogicheskiy institut.
(Copper-manganese alloys—Magnetic properties)

10 P-25
10/11/40

41518
S/126/62/014/003/007/022
E039/E420

AUTHORS: Znamenskiy, R.V., Fakidov, I.G.

TITLE: Superparamagnetic properties of some antiferromagnetic alloys of the Cu-Mn system

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962,
391-395

TEXT: Previous work by the authors and other workers is extended. The magnetic properties of the polycrystalline alloy Cu + 22.8 at.% Mn are investigated in magnetic fields up to 200 kOe and in the temperature range from 56 to 450°K. The method of preparation of the samples and the production of pulsed magnetic fields of 20 kOe is as described in earlier papers. It is shown that in magnetic fields of up to 30 kOe the approach to magnetic saturation follows the law

$$\sigma_{H,T} = \sigma_{\infty,T} \left(1 - \frac{A}{H^2}\right) \quad (5)$$

where σ is the magnetization and H the magnetizing field. For fields larger than 30 kOe the square law begins to change and Card 1/2

Superparamagnetic properties ...

S/126/62/014/003/007/022
E039/E420

for fields above 75 kOe the law of approach to saturation is

$$\sigma_{H,T} = \sigma_{\infty,T} \left(1 - \frac{B}{H}\right) \quad (6)$$

The presence of ferromagnetic clusters in an antiferromagnetic matrix can lead to the appearance of terms of the form B/H in Eq. (6) which become dominant in very strong fields. No firm conclusion is drawn on the nature of the ferromagnetic clusters in the investigated alloys. Preliminary measurements on Cu-Mn alloys with an Mn content of 2.4, 5.3 and 7.5 at.% show that these alloys possess analogous magnetic properties. There are 6 figures.

ASSOCIATIONS: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)
Sverdlovskiy gosudarstvennyy pedinstitut
(Sverdlovsk State Pedagogical Institute)

SUBMITTED: March 26, 1962

Card 2/2

FANIDOV, I.G.; ZNAMENSKIY, B.V.

Magnetic properties of the polycrystalline alloy Cu+ 22.8
atom % Mn. Zhur. eksp. i teor. fiz. 40 no.5:1522-1523 My
'61. (MIRA 14:7)

1. Institut fiziki metallov AN SSSR i Sverdlovskiy
gosudarstvennyy pedagogicheskiy institut.
(Copper-manganese alloys--Magnetic properties).

18.8100 1138, 1045, 1418

24719

24,7900

8/056/61/040/005/019/019
B109/B212

AUTHOR: Fakidov, I. G., Znamenskiy, B. V.

TITLE: Magnetic properties of the polycrystalline alloy
Cu + 22.8 atom% Mn

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40,
no. 5, 1961, 1522 - 1523

TEXT: Measurements were done with an alloy consisting of Cu + 22.8 atom% Mn. The alloy had been obtained by h-f melting and had been subjected to a long tempering and subsequent hardening. It was found that the magnetic susceptibility of the alloy is independent of the field strength in fields up to 3000 oe and reaches a maximum at a temperature of 94° K. The magnetocaloric effect had a negative sign in the field range mentioned. The authors, therefore, came to the conclusion that the alloy is an anti-ferromagnetic material with a Neel point near 94° K. This antiferromagnetic material developed typical ferromagnetic properties at temperatures below T_N when exposed to external field exceeding a critical value H_p . Measurements of the (now positive) magnetocaloric effect demonstrated the

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Magnetic properties of the ...

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S/056/61/040/005/019/019
B109/B212

occurrence of a spontaneous magnetization. The magnetization reaches its saturation value in fields above 10.000 oe. The value of this critical field strength will change with varying temperatures; e. g., at 56° K it amounts to 4000 oe. Above 94° K the alloy is paramagnetic for all values of the external field and it obeys the Weiß-Curie law. Results are shown in Figs. 1 and 2. It is noted that the alloy investigated resembles the well-known intermetallic compound MnAu₂ with respect to its magnetic properties; it is also pointed out that a neutron-diffraction study of the magnetic structure of the Cu-Mn alloy and a comparison with that of MnAu₂ (Ref. 9: A. Herpin, P. Meriel, Villain, C. R., Paris, 249, 1334, 1959) would be very valuable. The authors thank V. N. Novogradskiy and E. A. Zavadskiy for discussions, and L. V. Smirnov for preparing the alloys. There are 2 figures and 9 non-Soviet-bloc references.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute of Physics of Metals, Academy of Sciences USSR). Sverdlovskiy gosudarstvennyy pedagogicheskiy institut (Sverdlovsk State Pedagogic Institute).

SUBMITTED: February 24, 1961

Card 2/4

ZNAMENSKIY, B.V.; FAKIDOV, I.G.

Magnetization and the magnetocaloric effect of the Cu + 22.8%
at % Mn polycrystalline alloy. Fiz. met. i metalloved. 13
no.2:312-314 F '62. (MIRA 15:3)

1. Institut fiziki metallov AN SSSR i Sverdlovskiy gosudarstvennyy
pedagogicheskiy institut.
(Copper-manganese alloys--Magnetic properties)

ZNAMENSKIY, G.
CA

15

Viscosity of liquid products in the alcohol industry
and methods for calculating pipe-line layouts. G. Znamenskiy and O. Oleinikova. *Spirto. Poddushayay* 7/1944, No. 1, 11 (in Russian). - On the basis of tabulated data for viscosity of alc. (10 to 99.5%) and various strengths of sugar mashes from molasses and from potato starch equations are derived for flow in pipes of different diams. under different operating conditions. Power, cost and other economic factors are considered. Julian F. Smith

Distillery devices. Dominador E. Batanga. *Sugarcane News* 21, 434 (1940). -A fuel-oil extractor, a device for handling H₂SO₄ and a cooling tower are described.

W. W. Dinkley

AIR SEA METALLURGICAL LITERATURE CLASSIFICATION

5

16

Viscosity of liquid products from corn and barley. C. G. MUNNELL AND O. KELLOGG. *Science*, Vol. 21, No. 471 (1901); cf. C. A. 15, 1027. Liquid intermediates were treated in the manner of ale, from corn, barley and rye. Bottled with suitable air connections for pressure control and equalization. Coarse particles were screened out and the liquid products were poured into the blarotc-bele at a specified temp. Viscosity was tested from five

time, wt. and d. of liquid, diam., and length of the stirrer and the pressure. From the observed results useful suggestions for improvements in mash prep. were derived, especially in relation to the influence of bran and shaft. Julian F. Smith

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四庫全書

48.16.6 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

NAMENSKIV, G.

EXPERIMENTAL AND PRACTICAL NOTES

14

Experimental data on the chlorination of drinking water containing pathogenic microorganisms. G. A. Zaspatilskii, Voenno-Sanit. Delo 1937, No. 3, 44-8; Chem-Zeitr. 1939, I, 4217. - The investigation showed that the usual dose of chloride of lime, as defin'd by the Cl demand of the water, does not have sufficient bactericidal effect on water contg. pathogenic organisms (typhoid, para-typhoid, and dysentery bacilli and the mæniococcus of

Maha fever). A moderate no. of the pathogenic organisms are killed during the first 20-30 min. but even after 3 hrs. a certain percentage of them remain alive. A double dose of Cl is required to kill the bacilli of para-typhoid B within 3 hrs.

W. A. Moore

APPENDIX B. BACTERIOLOGICAL LITERATURE CLASSIFICATION

KONDRA'T'YEVA, V.P.; BELOVOSKIY, G.D., professor, zavodnyyushchiy; ZNAMENSKIY, G.A., professor, direktor.

Preparation of a dry medium for the detection of *B. Perfringens*. Author's abstract. Zhur.mikrobiol.epid.i immun. no.8:64-65 Ag '53. (MLR 6:11)

1. Kafedra mikrobiologii Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey im. S.M.Kirova (for Belovskiy). 2. Gosudarstvennyy ordena Lenina institut usovershenstvovaniya vrachey im. S.M.Kirova (for Znamenskiy, G.A.).
(Bacteriology--Cultures and culture media)

USSR/Medicine - Epidemiology

FD-1646

Card 1/1 : Pub. 148-26/28

Author : Znamenskiy, G. A. and Belyakov, V. D.

Title : Certain theoretical problems of epidemiology

Periodical : Zhur. mikro, epid. i immun. 7, 103-108, Jul 1954

Abstract : A discussion of epidemiology as a "social-medical" science from the dialectical viewpoint is given. Epidemiology is defined from the point of view of communist ideology. No references are cited. A quotation from Engel's is used to illustrate the author's contentions.

Institution : --

Submitted : August 15, 1953

ZNAMENSKIY, G. A., USPENSKIY, N. D., OSIPYAN, V. T.

Application of Aerosol Bombs (VMA) in Disinfestation Practice.

VOYENNO-MEDITSINSKIY ZHURNAL (MILITARY MEDICAL JOURNAL), No 12, 1954. P. 50

ZNAMENSKIY, G.A.; STOLBOV, V.S.; SHCHERBAN', S.A. [deceased];
TURCHIN, P.Ye., red.; DANILOVA, Z.S., red.-leksikograf;
KUZ'MIN, I.F., tekhn. red.

[French-Russian aeronautical dictionary] Frantsuzsko-russkii
aviateionnyi slovar'. Moskva, Voenizdat, 1962. 485 p.

(MIRA 15:6)

(French language—Dictionaries—Russian)
(Aeronautics—Dictionaries)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4

ZNAMENSKIY, G. M.

DECEASED

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*Mechanical
Eng.*

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

ZNAKOMSKIY, G.M.

POPOV, V.I.; DOBROSHEROV, L.L.; STABNIKOV, V.N.; ANDREEV, K.P.;
ZNAKOMSKIY, G.M., professor, retezents; SKOLO, D.I., kandidat
tekhnicheskikh nauk, retsezent; SERGIN, P.V., kandidat
tekhnicheskikh nauk, retsezent; IZRAILEVICH, L.M., inzhener,
retezents; MASLOVA, Ye.P., redaktor; DUBOTKINA, N.A., tekhnicheskiy
redaktor.

[Technological equipment for fermentation industries] Tekhnologicheskoe
oborudovaniye brodil'nykh proizvodstv. Moskva,
Pishchepromizdat, 1953. 515 p. (MLN 7:8)
(Distilling industries) (Brewing industries)

ZNAMENSKIY, G.H.; STEBNER, V.V.

Electrolysis of acid solutions of zinc sulfate at very low current densities. Zhur. prikl. khim. 33 no.12:2728-2730 D '60.

(MIRA 14:1)

1. Dnepropetrovskiy khimiko-tehnologicheskiy institut.
(Zinc sulfate)

ZNAMENSKIY, G. N.

PAGE I BOOK EXPLOITATION 30V/2216

5(4) Dovershechnye po elektrokhimi. 4th, Moscow, 1956.
 Trudy... [Izbrannik] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 868 p. Errata slip inserted. 2,500 copies printed.
 Sponsoring Agency: Akademicheskaya kniga SSSR. Otdeleniye khimicheskikh nauk.

Editorial Board: A.M. Pruzin (Responsible), G.A. Yesin, Professor; S.I. Zhdanov (Responsible), P.M. Kabanov, Professor; Ye. M. Kotortkin (Responsible), B.M. Knabov, Professor; Ye. M. Kotortkin, Doctor of Chemical Sciences; V.V. Losav, P.D. Lukortev, Professor; Z.A. Solov'yova, V.V. Steender, Professor; and G.M. Filopjanovich; Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: T.A. Pusakova.

PURPOSE: This book is intended for chemical and electrical engineers, physico-chemists, metallurgists and researchers interested in various aspects of electrochemistry.

CONTENTS: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electrodeposition and industrial electrolysis. Abridged discussions are given at the end of each division. The majority of reports not included here have been published in periodical literature. No personalities are mentioned. References are given at the end of most of the articles.

46. G. N. Hydrometallurgical Production of Manganese and Chromium 493

Titov, P.S., and Z.A. Subyakina (Institut tsvetnykh metallov i zolota). Iseni M.I. Kolchina-Institute of Nonferrous Metals and Gold Iseni M.I. Kolchina). Cathodic Processes During the Deposition of Tin from Halogen Electrolytes 498

Bogolyubov, M. (Fizikal'noe obshchirevennyy universitet-Tver'). the Metal Electrodeposition Process 501

Zinchenko, V.M., and B. Ya. Krasnoshay. Electrodeposition of Hard Magnetic Alloys 506

Kadashov, L.I., and A.N. Pakin (Radiochimicheskiy Institut im. I.M. Tornovskogo, Karlsruhe). Electrodeposition of Platinized Metals onto a Passivated Surface 512

Card 20/34

ZNAMENSKIY, G.N.; ZHUK, A.P.; STENDER, V.V.

Effect of the conditions of electrolysis of zinc chloride acid solutions on the magnitude of the true surface of zinc precipitates. Ukr. khim. zhur. 31 no.4:367-372 '65.

(MIRA 18:5)

1. Dnepropetrovskiy khimiko-tehnologicheskiy institut.

CHAIKOVSKAYA, V.M.; AFANAS'IEV, G.F.; ZNAMENSKIY, G.N.

Properties of acid solutions of zinc sulfate. Zhur.prikl.khim.
36 no.6:1355-1357 Je '63. (MIRA 16:8)

1. Dnepropetrovskiy khimiko-tehnologicheskiy institut.
(Zinc sulfate) (Sulfuric acid)

ZNAMENSKIY, G. N., PAKHOMOVA, G. N., and STENIN, V. V.

"Selection of composition of electrolyte, material for the cathode and obtaining of zinc at high current densities with use of ordinary stationary and continuous-action mechanized electrolyzers (drum, disk and others)".

Report presented at the Intervuz Conference on Electrodeposition of Nonferrous Metals, Ural Polytechnical Institute im S. M. Kirov, Sverdlovsk, held from 27-30 May 1963

(Reported in Tsvetnyye Metally, No. 10, 1963, pp. 82-84)
JPRS 24,651 19 May 64

ZNAMENSKIY, G. N.

~~KHAYEVICH~~

PHASE I BOOK EXPORTATION 507/2216

5(4)

Sevoshchaniye po elektrokhimii. 4th. Moscow. 1956.
 Soveteskayi (Transactions of the Fourth Conference on Electrochemistry).
 Trudy... [laboratory] Collection of Articles) Moscow, Issledo-AN SSSR,
 rovushchestvennyi. Collection of Articles) Moscow, Issledo-AN SSSR, 2500 copies printed
 1959. 868 p. Errata slip inserted. Odzeleniye knizhcheskikh
 sponzoring Agency: Akademiya nauk SSSR. Odzeleniye knizhcheskikh
 nauk.

Editorial Board: A.M. Pruskin (Resp., Ed.) Academician, O.A. Yesin,
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 Ye. M. Kotovskiy, Doctor of Chemical Sciences; V.V. Stander, Professor;
 Ye. M. Lukovskiy, Professor; Z.A. Solov'yeva, V.V. Stander, Professor;
 and G.N. Pirogovich, Ed. of Publishing House: N.O. Yegorov,
 Tech. Ed.; T.A. Prusakova.

PURPOSE: This book is intended for chemical and electrical engineers,
 metallurgists and researchers interested in
 inorganic, physiologists, metallurgists and researchers interested in
 various aspects of electrochemistry.

CONTENTS: The book contains 127 of the 138 reports presented at
 the Fourth Conference on Electrochemistry sponsored by the Department
 of Chemical Sciences and the Institute of Physical Chemistry,
 Academy of Sciences, USSR. The collection pertains to different
 branches of electrochemical science, double layer theory and
 basic processes in metal electrodeposition and industrial elec-
 trochemistry. Arranged discussions are given at the end of each division.
 References are given at the end of each article.

Sladec, V.V., O.Z. Kirilyakov, O.E. Grannashevskiy, S.A. Alekseyev,
 V.P. Svirid, and A.P. Solntsev. Electropolishing. Densities
 During the Electrolytic Preparation of Zinc 461

Bogatsev, A.I., and Yu.E. Matius. (Institute of Chemistry, Vilnius, Lithuania,
 and Technological Institute of the Ministry of Chemical Industry, Vilnius, Lithuania).
 New Electrolyte for Bright Tinplating 477

Korobov, M.I., and K.M. Zhuravleva. Adhesion of Nickel Plating
 to Steel, Nickel, Copper, Brass, Zinc and a Copper-Nickel Alloy 482

Malin-A.I. Contact Separation of Some Metals at the Surface
 of Aluminum Alloys 486
 Card 19/34

S/020/61/157/002/011/020
B103/B215

AUTHORS: Znamenskiy, G. N., Gamali, I. V., and Stender, V. V.

TITLE: Peculiarities of electrodeposition of metals from extremely pure solutions

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 2, 1961, 335-337

TEXT: The authors describe experiments on the electrodeposition of the electronegative metals zinc and manganese from extremely pure solutions. They found that the chemically pure salts usually used for studying the kinetics of such processes, do not guarantee the required experimental purity, not even when they have been recrystallized. Small amounts of organic impurities in the solution hamper the determination of the influence of surface-active admixtures on the structure of the cathodic deposit, and on the value of cathodic polarization. Therefore, the authors used extremely pure ZnSO₄ solutions produced as follows: metallic zinc contained 10⁻⁵% of admixtures and was produced by sublimation in a nitrogen atmosphere. ✓

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Peculiarities of electrodeposition...

following the method of the Gipronikel' Institute. Chemically pure sulfuric acid was distilled. Water was boiled in potassium permanganate, and then distilled three times, but 1/3 (first portions) of the distillate was not used. The solution thus obtained was boiled again, and then for a long while exposed to current from platinum electrodes. By using standard concentrations (Zn 60 g/l, H_2SO_4 100 g/l) at $20^\circ C$, the authors obtained from this solution a current output of zinc up to 60% at low current density (1 A/m^2), and up to 99% at 5 A/m^2 . Zinc, however, was intensively dissolved already at 30 A/m^2 in an electrolyte of chemically pure $ZnSO_4$ which had been recrystallized three times. The electrode potential of high-purity zinc without current or with weak current is shifted by 25-30 mv toward negative values (as compared to the potential of the conventional $UO_2(TsO)$ electrolytic zinc). Only glass parts can be used in the electrolytic cell when using high-purity solutions. Plastics (viniplast, organic glass, polyethylene) change the structure of deposited zinc. Crystals become irregular and small. On the basis of these results, the authors worked out a method of

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Peculiarities of electrodeposition...

measuring the active surface of zinc, which gives well reproducible results, and is also applicable to other metals (Ref. 5, V. V. Stender, G. N. Znamenskiy, Nauchn. dokl. vyssh. shkoly, ser. khim., 1, 189 (1959)). For similar experiments with manganese, the authors used an electrolyte of 50 g/l of manganese (as chloride), and 110 g/l of ammonium chloride. Manganese was dissolved at pH >1. The solution was purified with manganese sulfide which was obtained from a previously purified manganese chloride solution and ammonium sulfide. Ammonium sulfide was obtained by absorption of hydrogen sulfide by an ammonia solution in water distilled twice. H₂S was obtained from chemically pure sodium sulfide previously purified from arsenic. After purification of sulfide, the manganese electrolyte was electrolytically treated in a glass vessel at a current density of 20-50 a/m². In the vessel, there was an anodic glass cell with a glass diaphragm, a platinum anode, and a cathode of pure aluminum. The catholyte was constantly stirred. Anodic gases were sucked off. Manganese hydroxide which was deposited in the catholyte and oxidized to dioxide by atmospheric oxygen, adsorbed all sorts of admixtures from the electrolyte. After filtration, the solution was subjected to another electrolytic treatment. This process was repeated

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Peculiarities of electrodeposition...

three times (altogether for 200-220 hr). Aluminum hydroxide obtained by anodic dissolution of A-00 (A-00) aluminum in a pure manganese chloride solution at a current density of 10 a/m^2 , was then added to the solution. Finally, the solution was filtered with a glass filter. From this solution the authors deposited manganese at 20°C , a pH of 7, and a current density of only 10 a/m^2 . At 2000 a/m^2 , the current output of manganese was 90%. All manganese deposits were of clear crystalline structure, even when suspended particles of manganese hydrates were added to the catholyte. The authors hold the opinion that imperfect crystalline deposits of manganese, or the absence of deposits at low current densities are due to admixtures in the electrolyte. The authors found that the crystallization of zinc and manganese in pure electrolytes does not essentially differ from the electrocrystallization of silver (A. T. Vagramyan, Ref. 8, Elektroosazdeniye metallov - Electrodeposition of Metals -, Izd. AN SSSR, 1950). They state that the kinetics of this process and the action of admixtures in extremely pure electrolytes should be studied. There are 2 figures and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc. The

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Peculiarities of electrodeposition...

S/020/61/137/002/011/020
B103/B215

reference to the English-language publication reads as follows: Ref. 2:
O. M. Bocklis, B. Conway, Trans. Farad. Soc., 45, 989 (1949).

ASSOCIATION: Dnepropetrovskiy khimiko-tehnologicheskiy institut im.
F. E. Dzerzhinskogo (Dnepropetrovsk Institute of Chemical
Technology imeni F. E. Dzerzhinskij)

PRESENTED: October 15, 1960 by A. N. Frumkin. Academician

SUBMITTED: May 9, 1960

Card 5/5

5(4)

AUTHORS:

Stender, V. V., Znamenskiy, G. N.

S07/156-59-1-49/54

TITLE:

The Determination of the Active Current Density in the Case
of the Electro-precipitation of Zinc at High Current Densities
(Oprudeleniye deystvuyushchey plotnosti toka na primere
elektroosazhdeniya tsinka pri vysokikh plotnostyakh toka)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya
tekhnologiya, 1959, Nr 1, pp 189 - 192 (USSR)

ABSTRACT:

In the electro-crystallization of metals various factors
(current density, temperature, time, ion concentration, etc)
cause a continuous change in the electrolytic precipitation,
and the determination of the actual current density is thus
rendered difficult. The paper under consideration studies
the changes in the active surface on the basis of the electro-
lytic precipitation of zinc at high current densities
(6000 a/m²), the above-mentioned changes being particularly
well noticeable in this process. The active surfaces of the
zinc precipitations obtained under different conditions were
judged on the basis of hydrogen hypertension. Zinc was used
that had been distilled in a nitrogen atmosphere. In the

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The Determination of the Active Current Density in the Case of the Electro-precipitation of Zinc at High Current Densities

SOV/156-57-1-49/54

same way water and sulfuric acid were purified to a high degree by means of distillation. A platinum plate was used as an anode, zinc monocrystals and various zinc precipitations served as a cathode. The potential-measuring was effected directly with respect to a saturated calomel electrode. Diagrams show the shifting in a positive direction of the hydrogen hypertension, as a function of time and temperature. Tables present the calculated enlargement of the active zinc surface as compared with the visible surface. According to these data the actual current density decreases rapidly, which explains the slowing-down of precipitation formation. With a precipitation of 2 mm thickness, the critical current density at which a re-dissolution of zinc may occur is almost reached. The method described can also be employed for the investigation of the surfaces of other pure metals (Cu,Cd, etc). There are 2 figures, 1 table, and 6 references, 4 of which are Soviet.

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The Determination of the Active Current Density in the Case of the Electro-precipitation of Zinc at High Current Densities SCV/156-59-1-49/54.

ASSOCIATION: Kafedra tekhnologii elektrokhimicheskikh proizvodstv Dnepropetrovskogo khimiko-tekhnologicheskogo instituta (Chair of the Technology of Electrochemical Products of the Dnepropetrovsk Institute of Chemical Technology)

SUBMITTED: July 15, 1958

Card 3/3

NAGIRNYY, V.M.; ZNAMENSKIY, G.N.

Some features of the deposition of zinc and cadmium on various cathodes. Ukr. khim. zhur. 31 no.9:962-965 '65.

(MIRA 18:11)

1. Dnepropetrovskiy khimiko-tehnologicheskiy institut imeni F.E. Dzerzhinskogo.

ZNAMENSKIY, G.N.; STENDER, V.V.

Effect of the conditions of electrolysis on the size of the
active surface of cathodic zinc. Zhur.prikl.khim. 37 no.7:
1478-1483 Jl '64. (MIRA 18:4)

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24008
S/080/61/034/006/010/020
D247/D305

AUTHORS: Znamenskiy, G.N., Mazanko, A.F., and Stender, V.V.

TITLE: Characteristics of codeposition of zinc and cobalt from sulfate solutions

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961,
1305 - 1311

TEXT: The present paper reports a study of phase structures and the nature of their distribution during codeposition of Zn and Co. Attention is mainly directed to the distribution of H overpotential in Zn-Co alloys which has a considerable influence on the process of electrolytic Zn separation. Alloys were thermally prepared from 99.99% pure Zn and 99.98% electrolytic Co which were dissolved in chemically pure H_2SO_4 and diluted 3-fold with distilled water. Zn-Co alloys were prepared from an electrolyte of composition 30-50 g/l Zn and 10-100 g/l Co, or pH 2-3, temperature 20°C, with current density of 250-300 A/dm². The alloys, before measuring H

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D247/D305

Characteristics of codeposition ...

overpotential, were polished and ground with subsequent cathode degreasing and rinsing. Polarization curves were obtained with a 1N H₂SO₄ solution at 20°C. Fig. 1 shows the effect of Co content in the alloy on overpotential of H liberated in both thermal and electrolytic alloys, a marked reduction of overpotential of H separation being observed on increasing Co content to 5% though lower by 80-100 mv in electrolytic than in thermal alloys (for the same Co content). Microstructures of the two types of alloy are also compared. The thermal alloy containing 4.6% Co is a 2-phase system of Zn and Co₅Zn₂₁ which is in accordance with the equilibrium graph. The structure of the electrolytic alloy with almost the same Co content is also 2-phase, but the amount of the more positive phase is much less and approximately corresponds to the Co content. These differences were verified by heat treatment of the electrolytic alloy at 350°C for 6 hours, followed by again measuring H overpotential and studying the microstructure. The magnetic properties of the two alloy types were examined. Co₅Zn₂₁ is not ferromagnetic and the thermal alloys with 0 - 20% Co were also

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Characteristics of codeposition ...

found to be not ferromagnetic. Electrolytic alloys with more than 1% Co were found to have clearly defined ferromagnetic properties which disappeared after heat treatment. The marked displacement of potentials shown on curves 5 and 6 (Fig. 8) indicates that the inception of intensive Zn dissolution is due to reduction of active current density below the critical value. To determine inception of an auto-solution of cathode Zn in relation to current density maintaining Co constant in the electrolyte, the potential variation of Zn residue with time for varying current densities was measured, using a solution of 35 g/l Zn 150 g/l H_2SO_4 and 20 mg/l of Co at 50°C, with current densities from 1000 to 6000 A/dm². With current densities of 3000 and 6000 A/m², the potential evenly changes to positive values; for 6000 A/m², the gradient of the curve is steeper and therefore the active current density falls more rapidly (Ref. 15: G.N. Znamenskiy, Byull. tsvetn. met., 1959, vol. 11, no. 136, p. 24). The auto-dissolution of the Zn deposit begins at 6000 A/m² after electrolysis for 100 minutes, at 5000 A/m² after 80 minutes, and at 1000 A/m² after 10 minutes. There

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Characteristics of codeposition ...

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D247/D305

are 9 figures and 16 references: 12 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: U. Tainton, Trans. Am. Electrochem. Soc., 1922, vol. 41, p. 392; G.M. Westrip, J. Chem. Soc., 1924, vol. 125, p. 1122; W. Harkins and H. Adams, J. phys. Chem., 1926, vol. 26, p. 205.

ASSOCIATION: Dnepropetrovskiy tekhnologicheskiy institut (Dnepropetrovsk Technological Institute)

SUBMITTED: September 12, 1960

Card 4/6

ZNAMENSKIY, I., inzh.; NAYMAN, I.; KULIKOV, V., master tsekha (G.Kuybyshev)

Technical information. Okhr.truda i sots. strakh. 5 no.2-29-31
F '62. (MIRA 15:2)

1. Zaveduyushchiy laboratoriyye sredstv individual'noy zashchity
TSentral'nogo nauchno-issledovatel'skogo instituta okhrany truda
Vsesoyuznogo tsentral'nogo soveta professional'nykh soyuzov (for
Nayman).

(Technological innovations)

ZNAMENSKIY, I.

Organizatsiya i Mekhanizatsiya Gidromeliorativnykh Rabot (Organization and
Mechanization of Work on Hydraulic Projects)

522 p. 3.00

SO: Four Continent Book List, April 1954

Influence of salinities on development and sugar content of water-melons. L. D. KRAMER AND B. L. APP. HORT. ZUTTOGEG. 22, 297-310; BIRD. ZEITL. 1934, 4, 463. Small additions of Na_2SO_4 or NaCl stimulated the growth of water-melons in pot culture. Na_2SO_4 produced an increase in sugar content (notably fructose). A. G. P.

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A. G. PL

APPENDIX B: INFLUENTIAL LITERATURE CLASSIFICATION

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APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

Influence of salts on development and sugar content of watermellon. I. D. Zinchenko, *Bull. Applied Botany Genetics Plant Breeding* (U. S. S. R.) 23, 207-310. - Small amounts of Na₂SO₄ or NaCl stimulate the growth of watermelons in pot cultures. Na₂SO₄ producing an increase in sugar content (notably fructose). B. G. A.

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION OF METALLURGICAL LITERATURE

GRINKEVICH, Petr Stepanovich, dotsent, kand.tekhn.nauk; DOMBROVSKIY,
N.G., prof., doktor tekhn.nauk, obshchiy red.; ZNAMENSKIY, I.I.,
prov., doktor tekhn.nauk, retsenzent; KIRIYENKO, T.E., ratsen-
zent; SHKUNDIN, B.M., inzh., retsenzent; BELIKOV, M.P., dotsent,
kand.tekhn.nauk, nauchnyy red.; KROMOSHCH, I.L., inzh., red.
izd-va; EL'KINA, E.M., tekhn.red.; SCIENTSIVA, L.M., tekhn.red.

[Building machinery] Stroitel'nye mashiny. Pod obshchey red.
N.G.Dombrovskogo. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.
i stroit.materialem, 1958. 495 p.
(MIRA 13:1)

1. Zamestitel' glavnogo melchanika Kuybyshovgidrostroya (for
Kirienko).

(Building machinery)

GRINKEVICH, Petr Stepanovich, dotsent, kand.tekhn.nauk; DOMBROVSKIY, N.G., prof., doktor tekhn.nauk, obshchiiy red.; BELYAKOV, M.P., dotsent, kand.tekhn.nauk, nauchnyy red.; KROMOSHCHI, I.L., inzh., red.izd-va; ZHAMENSKIY, I.I., prof., doktor tekhn.nauk, retsenzent; KIRIYENKO, I.K., zamestitel' glavnogo mekhanika, retsenzent; SEMENDIN, B.M., inzh., retsenzent; EL'KINA, E.M., tekhn.red.; SOLNTSEVA, L.M., tekhn.red.

[Building machinery] Stroitel'nye mashiny. Pod red. N.G. Dombrovskogo. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroy.materiam., 1958. 495 p.

(MIRA 12,3)

1. Kuybyshevgidrostroy (for Kiriyenko).
(Building machinery)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4

The Mugan irrigation system and its present condition. Petrograd, 1923. 90 p.
Cyr. 4 TC8

1. Irrigation-Azerbaijan

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065320009-4"

ZNAMENSKIY, I.I.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Znamenskiy, I.I.	"Organization and Mechanization of Water Soil Improvement Works" (student manual)	Kazakh Agricultural Institute; Omsk Agricultural Institute imeni S.M. Kirov

SO: W-30604, 7 July 1954

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 233 - I

BOOK

Author: ZNAMENSKIY, I. I., Professor

Call No.: AF589978

Full Title: ORGANIZATION AND MECHANIZATION OF HYDRO-AMELIORATION WORKS

Transliterated Title: Organizatsiya i mekhanizatsiya gidromeliorativnykh
rabot

Publishing Data

Originating Agency: None

Publishing House: State Publishing House of Agricultural Literature

Date: 1952

No. pp.: 523

No. of copies: 15,000

Editorial Staff

Editor: Ryabyshev, M. G., Engineer

Tech. Ed.: None

Editor-in-Chief: None

Appraisers: Zhurin, V. D.,
Professor, Doctor Tech. Sci.
and Fehin, N. K., DotsentOthers: One chapter was written by Lopatin, N. A., Engineer, Assistant
to Prof. Znamenskiy.

Text Data

Coverage: This textbook describes the methods and organization of large-scale mechanized hydraulic construction, and the types and uses of individual machines (pumps, excavators, cement mixers, etc.). There are frequent sketches of recent Soviet models, which do not seem to incorporate any new principle.

1/2

Organizatsiya i mekhanizatsiya gidromeliorativnykh rabot

AID 233 - I

The book is of possible interest as indicating the machinery used
in the hugh new Soviet hydroelectric and irrigation projects.

Purpose: Approved by the Ministry of High Education USSR as a textbook for
hydro-amelioration institutes and university departments.

Facilities: Many Soviet hydroelectric and irrigation projects are mentioned.
No. of Russian and Slavic References: A few scattered references in footnotes.

Available: A.I.D., Library of Congress.

ZNAHENSKIY, Il'ya Ivanovich, prof. [deceased]; LENTHEV, B.Ya., red.;
GUREVICH, M.M., tekhn.red.

[Organization and mechanization of work in hydraulic engineering
for land improvement purposes] Organizatsiya i mekhanizatsiya
gidromeliorativnykh rabot. Izd.2., perer. i dop. Moskva, Gos.
izd-vo sel'khoz.lit-ry, 1960. 639 p. (KIRA 13:11)
(Hydraulic engineering)

ZNAMENSKIY, I. V.

CA

11-D

SEARCHED		INDEXED		FILED	
A method of determining the proteins of insects. I. B. Znamenskiy. Acta Inst. Nat. Acad. Sci. U. R. S. S. Inst. Exptl. Ser. 6, No. 2, 273-82 (1938); Brus. Nauchn. Tr. No. 2, 151 (1938).--The method is described. Thirty references. M. W. H.					
ABSTRACTS METALLURGICAL LITERATURE CLASSIFICATION					
ITEM NUMBER		SEARCHED		INDEXED	
SEARCHED	INDEXED	SEARCHED	INDEXED	SEARCHED	INDEXED
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